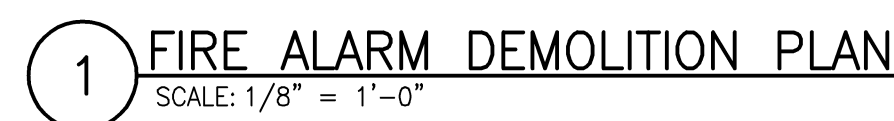


1. THE PREFABRICATED AUDIO BOOTHS ARE TO BE SUPPLIED WITH CONDUITS AND BOX FOR FIRE ALARM DEVICE. CONTRACTOR SHALL PROVIDE STROBE AND WIRING FOR CONNECTION TO FIRE ALARM SYSTEM.
2. AT EACH SMOKE DAMPER (AS SHOWN ON HVAC DRAWINGS) PROVIDE 120VAC FROM PANEL EGA-A, CIRCUIT # 37.
120VAC TO POWER FACTORY INSTALLED ELECTRONIC ACTUATOR BY 23. SEE DETAIL 3/FA-101 FOR WIRING INFORMATION.



KEY PLAN – GROUND FLOOR
SCALE: NONE

**100% CONTRACT DOCUMENTS
FULLY SPRINKLERED**

[illegible]

FIRE ALARM SYSTEM INPUT OUTPUT SEQUENCE OF OPERATIONS MATRIX												
INPUT DEVICE	OUTPUT DEVICE											
	1	2	3	4	5	6	7	8	9	10	11	12
DUCT SMOKE DETECTOR*				X				X (a)				
DOOR RELEASE SMOKE DETECTOR**	X	X	X		X	X				X		
ELEVATOR SMOKE DETECTOR*		X	X									
MANUAL PULL STATION	X	X	X		X			X				

NOTES:

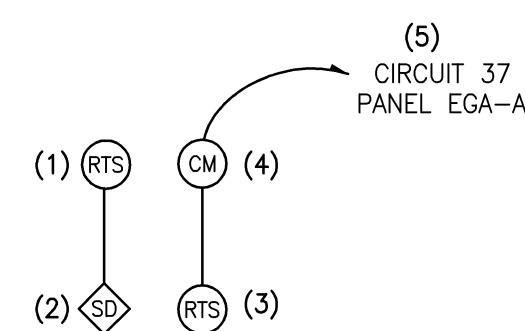
* While NFPA 101 DOES NOT REQUIRE SOME DETECTORS TO NOTIFY BUILDING OCCUPANTS, VA REQUIRES ALL SMOKE DETECTORS, OTHER THAN DUCT DETECTORS, TO NOTIFY BUILDING OCCUPANTS. ONLY INSTALL SMOKE DETECTORS WHEN REQUIRED BY THE LIFE SAFETY CODE OR ITS REQUIREMENTS.

** THOSE DOORS THAT ARE REQUIRED TO BE TIED TO THE FIRE ALARM SYSTEM SUCH AS DELAYED EGRESS AND ACCESS CONTROLLED DOORS.

(a) - DO NOT PROVIDE DUCT DETECTORS IN DEDICATED (100%) EXHAUST FANS THAT SHOULD CONTINUE TO RUN.

1 FIRE ALARM MATRIX

SCALE: NONE
SEE FIRE ALARM RISER NOTES FOR MORE INFORMATION

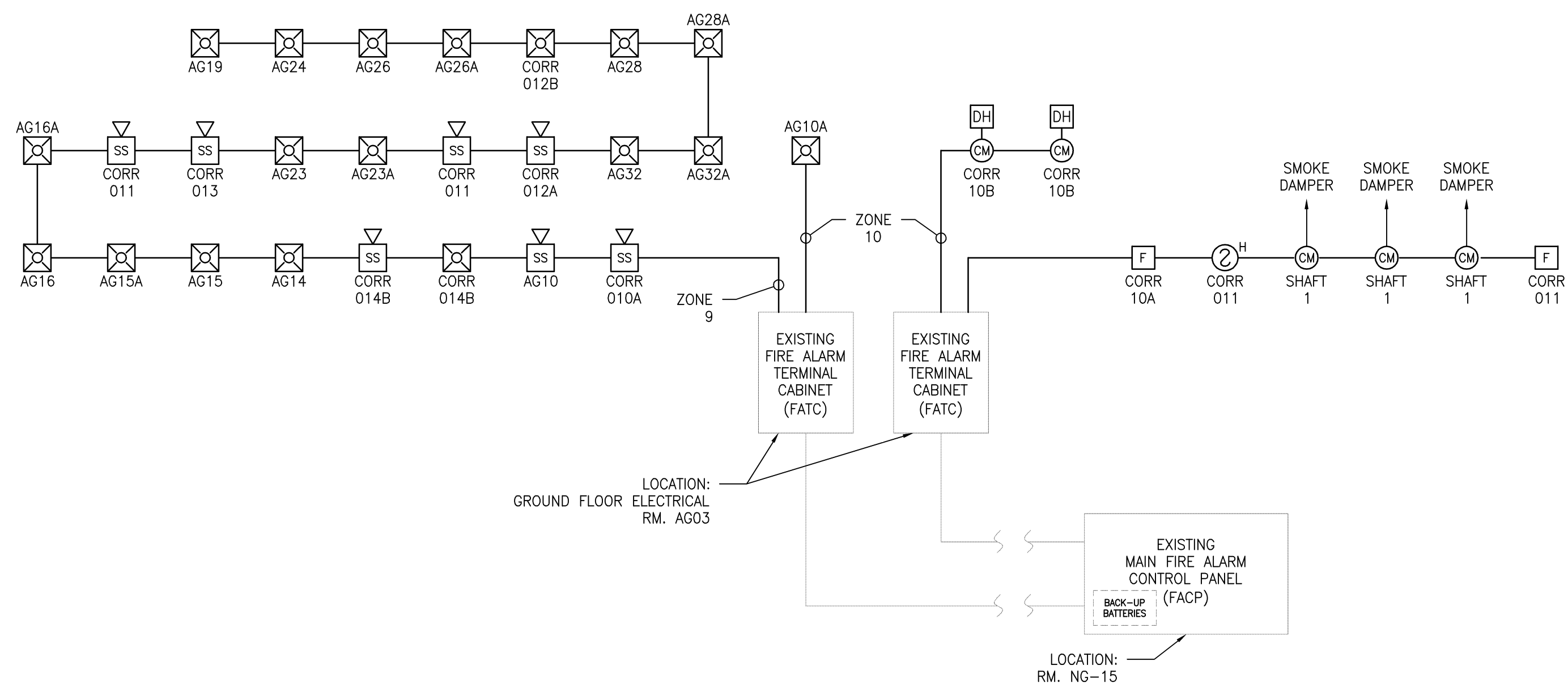


3 COMBINATION FIRE/SMOKE DAMPER WIRING

SCALE: NONE
SEE FIRE ALARM RISER NOTES FOR MORE INFORMATION

COMBINATION FIRE / SMOKE DAMPER NOTES:

1. REMOTE INDICATING LIGHT WITH KEY SWITCH
2. DUCT DETECTOR
3. FIRE ALARM CONTROL RELAY
4. ELECTRICALLY OPERATED ACTUATOR
5. 120VAC EMERGENCY



2 FIRE ALARM RISER DIAGRAM
SCALE: NONE

SCALE: NONE
SEE FIRE ALARM RISER NOTES FOR MORE INFORMATION

GENERAL SHEET NOTES:

1. SEE DRAWING FA-001 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.

FIRE ALARM RISER NOTES:

1. THIS RISER IS INDICATIVE OF THE SYSTEM CONFIGURATION & SHALL NOT BE USED FOR QUANTIFYING DEVICE NUMBERS.
2. THE DWG. IS TO BE COORDINATED WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL, & STRUCTURAL DWGS.
3. MANUAL PULL STATIONS SHOWN AT EXIT DOORS SHALL BE WITHIN 5' OF SUCH DOORS (INSTALLED AT 48" AFL). MANUAL PULL STATIONS SHALL BE LOCATED WITH NO MORE THAN 200' BETWEEN STATIONS IN THE PATH OF EGRESS.
4. FIRE ALARM WIRING SHALL BE INSTALLED TO MEET THE SURVIVABILITY REQUIREMENTS FOR NOTIFICATION CIRCUITS. IT SHALL MEET UL2196 FIRE TEST STANDARDS & ARE CLASSIFIED AS 24HR. FIRE RATED ELECTRICAL CIRCUIT PROTECTIVE SYSTEM.
5. RETURN LOOP SHALL NOT SHARE THE SAME CONDUIT AS THE OUTGOING LOOP.
6. RELAYS TO BE PROVIDED AS REQUIRED FOR MECHANICAL SYSTEM SHUTDOWN & CONTROL.
7. PROVIDE (1) 1°C TO EACH AUDIOVISUAL AMPLIFIER/SPEAKER SYSTEM LOCATION FOR FIRE ALARM SYSTEM OVERRIDE IN AN ALARM CONDITION.
8. NOT USED
9. ALLOW A MIN. OF 15% SPARE CAPACITY FOR EACH LOOP UNLESS APPROVED BY OWNER.
10. FOR THE SYSTEM MATRIX, DEFINING THE INTERFACE OF THE FIRE SAFETY CONTROL FUNCTIONS, PROVIDE A FIRE ALARM SYSTEM INPUT-OUTPUT SEQUENCE OF OPERATION MATRIX.
11. VERIFY EXISTING NOTIFICATION CIRCUIT/POWER SUPPLY. PROVIDE POWER SUPPLY AS REQUIRED FOR ADDITIONAL CAPACITY.



GENERAL NOTES

1. FIRE PROTECTION SPRINKLER INSTALLATION SHALL MEET THE REQUIREMENTS OF THE FOLLOWING:
 - A. NFPA 13 AND 14, 2013 EDITION & 101 EDITION 2012.
 - B. LOCAL AND STATE REGULATIONS AND IBC 2010 EDITION.
 - C. IWA FIRE PROTECTION MANUAL, SIXTH EDITION, REVISED SEPTEMBER 2011.
2. SPRINKLER HEADS SHALL BE FM APPROVED QUICK RESPONSE IN ALL AREAS EXCEPT WHERE SPECIFICALLY PROHIBITED, IN COMPLIANCE WITH VA GUIDELINES AND NFPA REQUIREMENTS.
3. SPRINKLERS THROUGHOUT THE BUILDING TO BE ORDINARY TEMPERATURE RATED EXCEPT FOR ELECTRICAL ROOMS/CLOSETS, HEADS LOCATED WITH 15' OF AUTOCLAVES SHALL BE INTERMEDIATE TEMPERATURE RATED AND MECHANICAL ROOMS TO BE PROVIDED WITH HIGH TEMPERATURE RATED HEADS.
4. SPRINKLER PIPE SIZES AND SPRINKLER HEAD LOCATIONS SHALL CONFORM TO NFPA REQUIREMENTS. SPRINKLER HEADS INDICATED ON DRAWINGS ARE FOR DESIGN COORDINATION AND BUDGETARY PRICING ONLY.
5. PIPE HANGERS INCLUDING SEISMIC PROTECTION TO BE INSTALLED AS REQUIRED BY N.F.P.A. FOR SUPPORTING SPRINKLER PIPING, NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE.
6. PIPING SHALL NOT BE LOCATED IN ANY ELECTRICAL ROOMS/CLOSETS OR TELECOMMUNICATION ROOMS/CLOSETS UNLESS THOSE PIPES SERVE ONLY THAT SPACE.
7. ALL SPRINKLER PIPE TO MAINTAIN A 6" - 8" MIN VERTICAL CLEARANCE FROM TOP OF ELECTRICAL CONTROL PANELS & SWITCHGEAR/TRANSFORMERS.
8. PROVIDE SPRINKLER ZONE FLOOR CONTROL VALVE ASSEMBLY CONSISTING OF CONTROL VALVE, CHECK VALVE, FLOW SWITCH, SELF-CONTAINED TEST AND DRAIN ASSEMBLY AND PRESSURE GAGE, ON THE SPRINKLER MAIN BRANCH SERVING EACH FLOOR.
9. INSTALL PIPING SUCH THAT VALVES ARE ACCESSIBLE AND STEMS EXTEND VERTICALLY UP. ALL CONTROL VALVES SHALL BE EQUIPPED WITH TAMPER SWITCHES.
10. ALL WATER FLOW SWITCHES MUST BE ISOLATED BY MEANS OF A FITTING OR UNION ON BOTH SIDE TO FACILITATE REMOVAL AND SERVICE OF THE FLOW SWITCH.
11. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THE QUANTITY OF SPRINKLER HEADS AS REQUIRED TO MAINTAIN THE MINIMUM COVERAGE REQUIRED BY NFPA 13 IS ALL AREAS THE BUILDING.
12. COORDINATE THE EXACT LOCATION OF ALL SPRINKLER HEADS, PIPING, EQUIPMENT, AND DEVICES WITH ARCHITECTURAL DRAWINGS AND THE RESPECTIVE DRAWINGS OF PIPING, CULVERS, DIFFUSERS, BEAMS, LIGHTS, ETC. THIS CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THESE COMPONENTS IN THE FIELD AND DOCUMENT ON THEIR SUBMITTALS.
13. PROVIDE COMPLETE AND FUNCTIONAL FIRE PROTECTION SYSTEMS FOR THE PROJECT. THE SYSTEMS SHALL CONFORM TO THE SPECIFICATIONS AND AS SHOWN ON DRAWINGS, ITEMS OR WORK NOT SHOWN OR SPECIFIED, BUT REQUIRED FOR COMPLETE SYSTEMS, SHALL BE PROVIDED AND CONFORM TO ACCEPTED TRADE PRACTICES. THE DRAWINGS AND SPECIFICATIONS ARE PRESENTED TO DEFINE THE BASIC FUNCTION OF THESE SYSTEMS AND SERVE TO EXPAND ON THE PRIMARY CONTRACT REQUIREMENTS OF PROVIDING COMPLETE SYSTEMS, THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT AND ROUTING OF THE SYSTEMS INCLUDED IN THIS CONTRACTORS WORK.
14. THESE DRAWINGS WERE PREPARED FROM INFORMATION TAKEN FROM THE ORIGINAL BUILDING DRAWINGS AND FIELD SURVEY INFORMATION COMPILED BY THE ENGINEERING DESIGN TEAM FOR THE PURPOSE OF ENGINEERING DESIGN CONCEPT. EXISTING CONDITIONS ARE SHOWN AS ACCURATELY AS POSSIBLE. THERE IS THE POSSIBILITY THAT CONDITIONS SHOWN ARE NOT EXACTLY AS EXISTING. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, LOCATIONS, SIZES AND CONDITIONS AT THE SITE AND DOCUMENT THAT ON THEIR SUBMITTALS.
15. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY BY HIM ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR AFFECTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL INSTALL SIGNAGE, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND TRAFFIC SAFETY. PLACEMENT OF THESE SIGNS SHALL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE RESTORED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
16. CONTRACTOR SHALL MAKE ALL NECESSARY SUBMISSIONS AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO STARTING FABRICATION AND CONSTRUCTION.

FIRE PROTECTION DESIGN CRITERIA

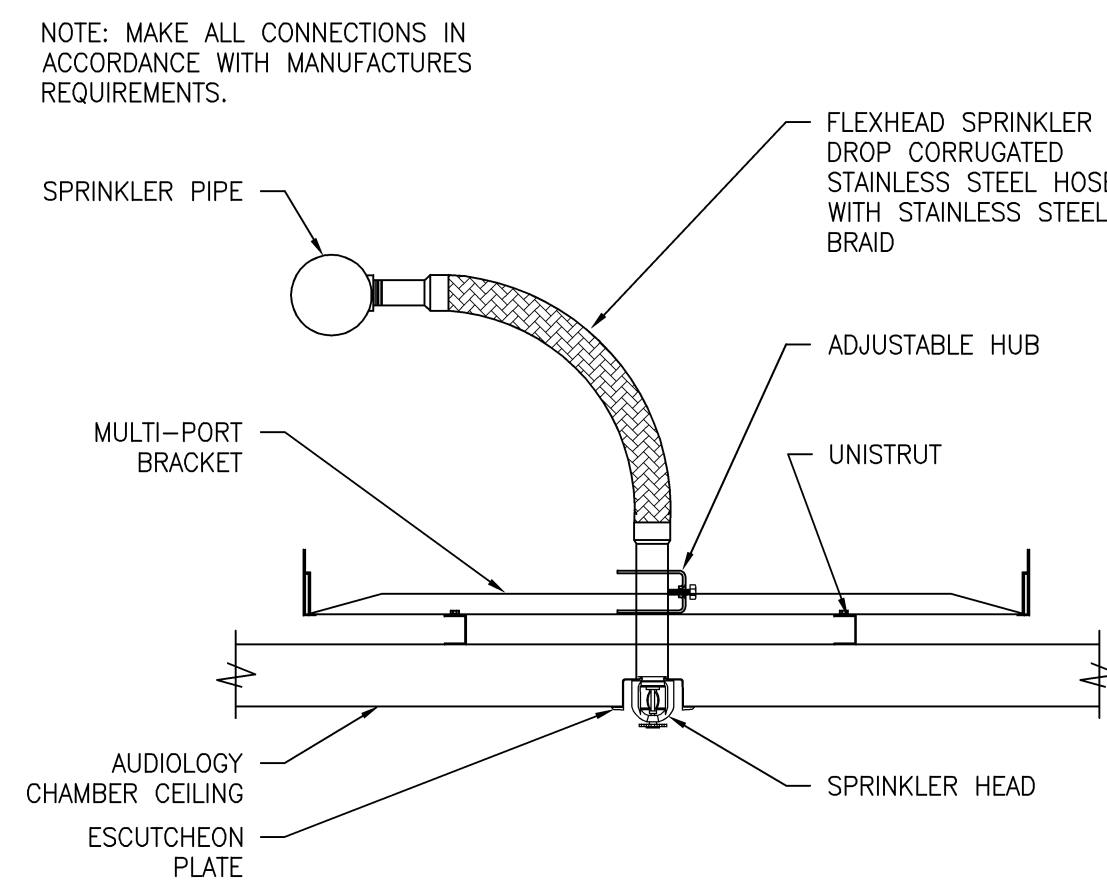
1. SYSTEM TYPE; WET PIPE
2. SPRINKLER HEAD SPACING AND PIPE SIZE SHALL BE:
 - a. TOILET ROOMS, TESTING AND OFFICE AREAS; LIGHT HAZARD (0.10 GPM/SQ.FT. OVER 1500 SQ.FT, 225 SQ.FT. PER SPRINKLER HEAD)
 - b. STORAGE ROOMS; ORDINARY GROUP II HAZARD (0.20 GPM/SQ.FT. OVER 1500 SQ.FT, 130 SQ.FT. PER SPRINKLER HEAD)
3. PROVIDE FOR AN ADDITIONAL WATER ALLOWANCE OF 250 GPM FOR INSIDE AND OUTSIDE HOSE STREAMS TO THE SPRINKLER HYDRAULIC REQUIREMENTS.
4. THE CALCULATED DEMAND INCLUDING HOSE STREAM REQUIREMENTS SHALL FALL NO LESS THAN 10 PERCENT BELOW THE AVAILABLE WATER SUPPLY.
5. SYSTEM SHALL BE DESIGNED ON A HYDRAULICALLY CALCULATED BASIS UTILIZING THE AREA DENSITY METHOD PER THE NFPA 13 BY THE SPRINKLER CONTRACTOR. CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
6. SPRINKLER PIPE SIZES SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS BASED ON EXISTING FIRE PUMP HYDRAULIC FLOW TEST DATA (SEE VAMC-SYRACUSE FOR CURRENT PUMP TEST DATA):
 - DATE: - OCTOBER 28, 2013
 - SUCTION PRESSURE - 45 PSIG
 - DISCHARGE PRESSURE - 180 PSIG
 - RATED FIRE PUMP FLOW - 1000 GPM

LEGEND

	EXISTING	ABV CLG	ABOVE THIS CEILING
	EXISTING TO BE REMOVED	BLW FLR	BELOW THIS FLOOR
	FIRE PIPING	(E)	EXISTING
	SPRINKLER PIPING	EC	ELECTRICAL CONTRACTOR
	DRY SPRINKLER PIPING	FC	FIRE PROTECTION CONTRACTOR
	SPRINKLER DRAIN PIPING	PC	PLUMBING CONTRACTOR
	CHECK VALVE	FHV	FIRE HOSE VALVE
	CONTROL VALVE	FDC	FIRE DEPARTMENT CONNECTION
	INSPECTORS TEST FITTING	SFR	SPRINKLER
	PRESSURE GAUGE		
	GROUND FACE UNION OR FLANGES		
	WATERFLOW SWITCH		
	TAMPER SWITCH		
	PENDENT SPRINKLER HEAD (NEW)		
	RECESSED PENDENT SPRINKLER HEAD (NEW)		
	UPRIGHT SPRINKLER HEAD (NEW)		
	SIDEWALL SPRINKLER HEAD (NEW)		
	SPRINKLER ZONE/SMOKE WALL		

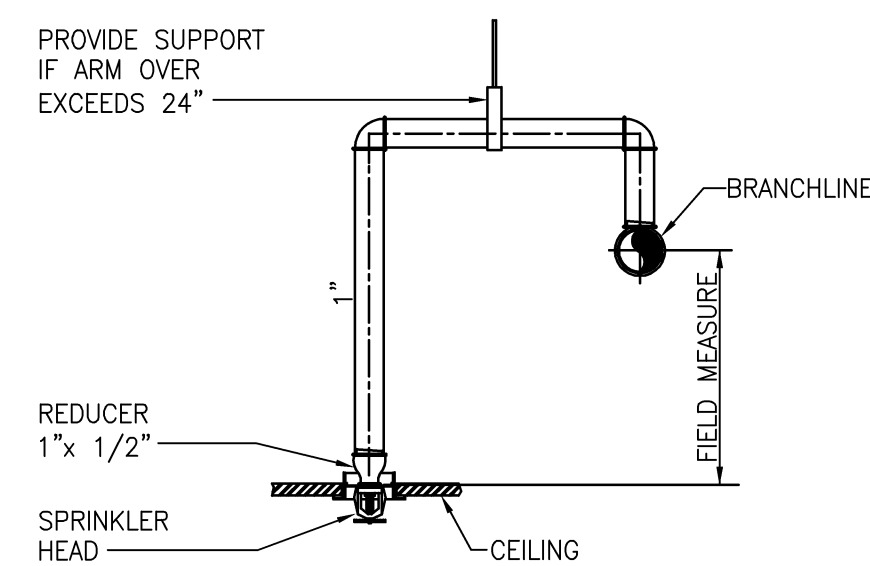
7 AUDIOLOGY CHAMBER SPRINKLER DETAIL

NOT TO SCALE



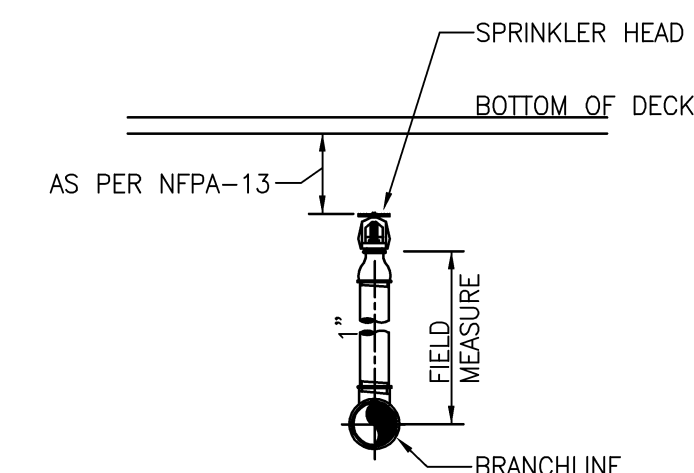
② TYPICAL DROP PENDENT DETAIL

NOT TO SCALE

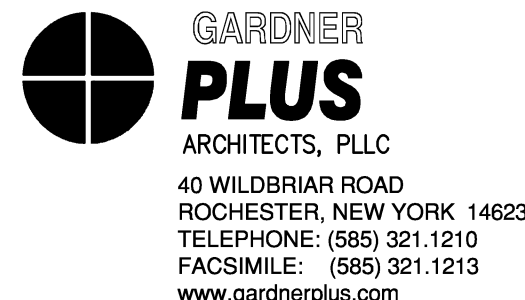


1 TYPICAL UPRIGHT/SPRIG DETAIL

NOT TO SCALE

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VA FORM 08-6231



MILLER-REMICK CORPORATION

Reviewed: Facility Manager

Reviewed: Facility Director

Reviewed

Reviewed

Drawing Title

**FIRE PROTECTION LEGEND
AND DETAILS**

Approved: Project Director

Project Title

**AUDIOLOGY LAB
RENOVATION**

Building Number
NO. 1

Checked
MC

Drawn PD

Location
VAMC SYRACUSE, NY

05-19-2014

Project No.
528A7-13-750


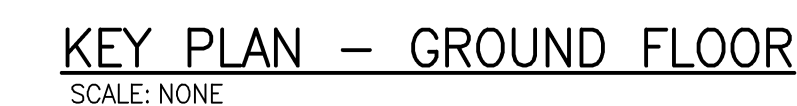
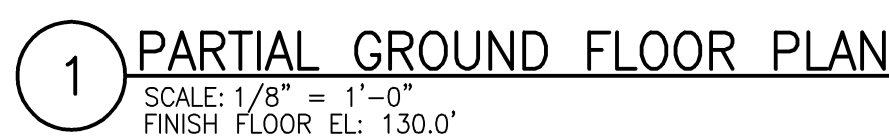
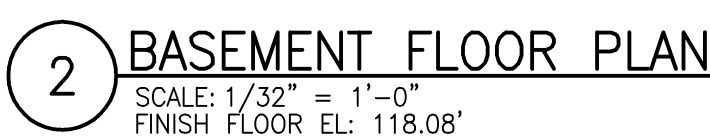
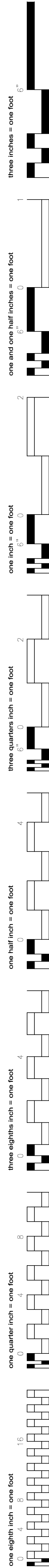
DRAWING NO.
EY-001

173

100% CONTRACT DOCUMENTS FULLY SPRINKLERED



Department of
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Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned
Small Business

1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)428-4000
FAX: (856)428-8002



 **GARDNER
PLUS**
ARCHITECTS, PLLC

40 WILDBIRIAN ROAD
ROCHESTER, NEW YORK 14623
TELEPHONE: (585) 321 1210
FACSIMILE: (585) 321 1213
www.gardnerplus.com

MILLER-REMICK CORPORATION
PROFESSIONAL ENGINEER

Reviewed: Facility Manager
Reviewed: Facility Director
Reviewed:
Reviewed:

Drawing Title	
FIRE PROTECTION GROUND FLOOR PLAN	
Approved: Project Director	

Project Title			
<h1 style="text-align: center;">AUDIOLOGY LAB RENOVATION</h1>			
Building Number	Checked	Drawn	
NO. 1	MC	PD	
Location			
VAMC SYRACUSE, NY			

Date	05-19-2014
Project No.	528A7-13-750
DRAWING NO.	FX-101
Dwg. 46	Of 46